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ABSTRACT

This is the seventh in the fourth series of general bibliographies developed to disseminate information on documents analyzed at the ERIC Information Center for Science and Mathematics Education. Reported are 48 citations on Science and Society, of Science and Mathematics Education, 46 on Science and Mathematics History, and 49 citations of General Studies and Surveys. Under these headings the entries are listed alphabetically by author. An author index is provided. The documents include research reports, research reviews, manuals, speeches, textbooks, and other document types. Citations include author, source, availability, and major ideas of the document. This bibliography updates, but does not replace, earlier biblicgraphies produced by the Center. (RR)

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# SCIENCE AND SOCIETY
# HISTORY OF SCIENCE AND MATHEMATICS EDUCATION
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# SCIENCE AND MATHEMATICS EDUCATION REPORT

GENERAL BIBLIOGRAPHY SERIES
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SCIENCE AND SOCIETY
HISTORY OF SCIENCE AND MATHEMATICS EDUCATION
SCIENCE AND MATHEMATICS HISTORY
GENERAL STUDIES AND SURVEYS

ERIC Information Analysis Center for Science
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1460 West Lane Avenue
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May, 1970

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## A. SCIENCE AND SOCIETY

1. SE 006 630
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INTRODUCTORY COLLEGE SCIENCE AND SCIENTIFIC LITERACY (PAPER PRESENTED AT THE ANNUAL MEETING OF THE NATIONAL SCIENCE TEACHERS ASSOCIATION, MARCH 1969)
EDUCATIONAL RESEARCH COUNCIL OF AMERICA, CLEVELAND, OHIO
03 00 69 29
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5. SE 500 038
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7. SE 006 544
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SCIENCE POLICY BULLETIN NUMBER 8
BATTELLE MEMORIAL INSTITUTE, COLUMBUS, OHIO
EDRS
ED 028 099 MF $0.50 HC $3.55
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8. SE 006 881
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10. SE 500 811
BUELL, ROBERT R.
THE FUTURE OF TEACHING IN A SCIENTIFIC AGE
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02 00 69 4
*CURRICULUM DESIGN, *EDUCATIONAL TRENDS, *INSTRUCTIONAL DESIGN, *SOCIAL CHANGE, *SCIENCE EDUCATION, CULTURAL DIFFERENCES, EDUCATIONAL OBJECTIVES, EDUCATIONAL NEEDS, 1969

11. SE 500 253
CLAPP, LEALLYN B.
CAN OUR CONSPICUOUS CONSUMPTION OF NATURAL RESOURCES BE CYCLIC?
THE SCIENCE TEACHER
04 00 69 3
*CONSERVATION EDUCATION, *ESSAYS, *NATURAL RESOURCES, *SOCIOECONOMIC INFLUENCES

12. SE 500 192
CLEMENT, ROLAND
MAN'S TWO ENVIRONMENTS
THE AMERICAN BIOLOGY TEACHER
03 00 69 4
*BIOLOGY, *ECOLOGY, *SOCIOECONOMIC INFLUENCES, ENVIRONMENTAL INFLUENCES, ENVIRONMENT, PHYSICAL ENVIRONMENT, SPEECHES, SOCIAL ENVIRONMENT

13. SE 006 595
COLLIER, H. O. J.
THE BIOLOGIST IN THE PHARMACEUTICAL INDUSTRY
BIOLOGY AND HUMAN AFFAIRS
68 8
*INTERAGENCY COOPERATION, *INDUSTRY, *PHARMACY, *SCIENTIFIC RESEARCH, *SCIENCES, BIOLOGICAL SCIENCES, TECHNOLOGY

14. SE 500 334
CONNELLY, F. MICHAEL
PHILOSOPHY OF SCIENCE AND THE SCIENCE CURRICULUM (PAPER PRESENTED AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING MEETING, FEBRUARY 1968)
JOURNAL OF RESEARCH IN SCIENCE TEACHING
69 6
*CURRICULUM DEVELOPMENT, *PHILOSOPHY, *SCIENCE EDUCATION, *SCIENTIFIC LITERACY, BIOLOGY, ECOLOGY, SCIENTIFIC ENTERPRISE, SCIENTIFIC METHODOLOGY

15. SE 500 034
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THE SCIENCE TEACHER
01 00 69 4
*SOCIAL CHANGE, *SCIENCE TEACHERS, *SOCIOECONOMIC INFLUENCES, CULTURAL ENVIRONMENT, CHANGE AGENTS, EDUCATIONAL ENVIRONMENT, THE FUTURIST, THE WORLD FUTURE SOCIETY

16. SE 006 697
CRANBERG, LAWRENCE
ETHICAL PROBLEMS OF SCIENTISTS
EDUCATIONAL RECORD
65 15
*BEHAVIOR, *ETHICS, *SOCIOECONOMIC INFLUENCES, *SCIENTIFIC PERSONNEL, *VALUES, ESSAYS, INTERPERSONAL COMPETENCE, INDIVIDUAL CHARACTERISTICS, LEADERSHIP RESPONSIBILITY, MORAL ISSUES, MORAL VALUES, PERSONAL VALUES, PERSONALITY DEVELOPMENT, SOCIAL ATTITUDES, SOCIAL CHANGE, SOCIAL VALUES

17. SE 006 386
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AMERICAN JOURNAL OF PHYSICS
12 00 68 7
*COLLEGE SCIENCE, *EDUCATIONAL PROGRAMS, *INSTRUCTIONAL IMPROVEMENT, *PHYSICS, *SCIENCE EDUCATION, EDUCATIONAL OBJECTIVES, COURSE OBJECTIVES, SECONDARY SCHOOL SCIENCE

18. SE 500 894
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NATURE--AS A TEACHER
SCIENCE AND CHILDREN
11 00 69 4
*ARCHITECTURE, *DESIGN, *ENVIRONMENT, *FRANK LLOYD WRIGHT, ART, BIOLOGY, BOTANY, 1969

19. SE 500 248
EASTMAN, GEORGE
SCIENTISM IN SCIENCE EDUCATION
THE SCIENCE TEACHER
04 00 69 4
*SCIENCE, *SCIENTIFIC ENTERPRISE, ESSAYS, SOCIOECONOMIC INFLUENCES, SCIENCE EDUCATION

20. SE 006 347
ERIC Information Analysis Center for Science Education
SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 17, SCIENCE AND SOCIETY, HISTORY OF SCIENCE EDUCATION, SCIENCE HISTORY, GENERAL STUDIES AND SURVEYS
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 026 283 MF $0.25 HC $1.70
12 00 68 32
*BIBLIOGRAPHIES, *SCIENCE EDUCATION, *SCIENCE EDUCATION HISTORY, *SCIENCE HISTORY, *SOCIOECONOMIC INFLUENCES, BIOLOGY, COLLEGE SCIENCE, EDUCATIONAL RESEARCH, ELEMENTARY SCHOOL SCIENCE, INTERNATIONAL EDUCATION, INSTRUCTION, PHYSICAL SCIENCES, SECONDARY SCHOOL SCIENCE, SCIENTIFIC LITERACY, SCIENTIFIC ENTERPRISE, TEACHER EDUCATION

21. SE 500 434
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WHAT IS SCIENCE?
THE PHYSICS TEACHER
09 00 69 8
*CONCEPT FORMATION, *EDUCATIONAL OBJECTIVES, *SCIENTIFIC ENTERPRISE, *SCIENTIFIC ATTITUDES, PHILOSOPHY, SCIENTIFIC LITERACY, 1969

22. SE 006 083
FINNISTON, H. M.
UNIVERSITY SCIENCE AND INDUSTRY
POLITICAL QUARTERLY
14
*COLLEGE SCIENCE, *INDUSTRY, *SCHOOL INDUSTRY RELATIONSHIP, INTERNATIONAL EDUCATION, RESEARCH, TECHNOLOGY, SOCIOECONOMIC INFLUENCES, GREAT BRITAIN

23. SE 007 134
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24. SE 006 700
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GOVERNMENT SUPPORT FOR ACADEMIC SCIENCE
EDUCATIONAL RECORD
66 11
*FINANCIAL SUPPORT, *GOVERNMENT ROLE, *SCIENTIFIC ENTERPRISE, *SCIENTIFIC RESEARCH, *SCIENCE EDUCATION, COLLEGE SCIENCE, EDUCATIONAL FINANCE, NATIONAL SCIENCE FOUNDATION

25. SE 006 382
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AMERICAN JOURNAL OF PHYSICS
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*ARTISTS, *PHYSICS, *SCIENCE EDUCATION, *SCIENTIFIC ENTERPRISE, COLLEGE SCIENCE, FRESHMAN STUDENTS, INSTRUCTIONAL IMPROVEMENT, INSTRUCTION, TEACHING TECHNIQUES, ROBERT A.MILLIKAN LECTURE

26. SE 500 397
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27. SE 500 779
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28. SE 500 335
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PHILOSOPHY OF SCIENCE: IMPLICATIONS FOR CURRICULUM, A REACTION (PAPER PRESENTED AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING MEETING, FEBRUARY 1968)
JOURNAL OF RESEARCH IN SCIENCE TEACHING
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29. SE 500 254
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31. SE 006 209
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NEW YORK UNIVERSITY, NEW YORK
NEW YORK UNIVERSITY PRESS, 32 WASHINGTON PLACE, NEW YORK, NEW YORK
ED 028 920 NOT AVAILABLE FROM EDRS
67 245
*COMMUNICATIONS, *JOURNALISM, *SCIENTIFIC LITERACY, MASS MEDIA, SCIENCES, SCIENTIFIC ENTERPRISE, TECHNOLOGY, TECHNICAL WRITING, TELEVISION, SOCIOECONOMIC INFLUENCES

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*PHYSICAL ENVIRONMENT, *SOCIAL ENVIRONMENT, ENVIRONMENTAL INFLUENCES, NATURAL RESOURCES, POPULATION GROWTH, SOCIOECONOMIC INFLUENCES, VALUES, UNITED STATES

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ED 027 216 MF $1.00 HC $10.40
67 206
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*BIOLOGY, *GOVERNMENT ROLE, *SCIENTIFIC RESEARCH, *SOCIAL PROBLEMS, FINANCIAL SUPPORT, TECHNOLOGY, 1969

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REISMAN, ARNOLD
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UNIVERSITY OF WISCONSIN, MILWAUKEE, COLL. OF APPLIED SCIENCE AND ENGINEERING
EDRS
ED 024 579 MF $0.50 HC $4.00
67 78
*CONFERENCE REPORTS, *ENGINEERING, *SOCIOECONOMIC INFLUENCES, *TECHNOLOGICAL ADVANCEMENT, CONFERENCES, ENGINEERING EDUCATION, INDUSTRIALIZATION, NATURAL RESOURCES, SCIENTIFIC RESEARCH, SYSTEMS ANALYSIS, TECHNOLOGY

40. SE 500 332
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PHILOSOPHY OF SCIENCE: IMPLICATIONS FOR TEACHER EDUCATION (PAPER PRESENTED AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING MEETING, FEBRUARY 1968)
JOURNAL OF RESEARCH IN SCIENCE TEACHING
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*BIOLOGY, *EDUCATIONAL RESPONSIBILITY, *SOCIOECONOMIC INFLUENCES, *TECHNOLOGICAL ADVANCEMENT, GENETICS, SOCIOECONOMIC INFLUENCES, SPEECHES, WORLD PROBLEMS

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47. SE 004 097
WOOLF, HARRY
SCIENCE AS A CULTURAL FORCE
JOHNS HOPKINS UNIVERSITY, BALTIMORE, MARYLAND
JOHNS HOPKINS UNIVERSITY PRESS, BALTIMORE, MARYLAND
ED 028 057 NOT AVAILABLE FROM EDRS
64 110
*GOVERNMENT ROLE, *NATURAL SCIENCES, *PHYSICAL SCIENCES, *SCIENTISTS, *SOCIOECONOMIC INFLUENCES, JOHNS HOPKINS UNIVERSITY, SHELL COMPANIES FOUNDATION LECTURES ON SCIENCE TECHNOLOGY AND SOCIETY

48. SE 006 679
SCIENCE AND THE CITIZEN
ADULT LEADERSHIP
01 00 66 3
*INFORMATION DISSEMINATION, *SOCIOECONOMIC INFLUENCES, *SCIENTIFIC LITERACY, EDUCATIONAL OBJECTIVES, SCIENCE EDUCATION, SCIENCE REPORTING

## B. HISTORY OF SCIENCE AND MATHEMATICS EDUCATION

1. SE 500 460
BIDWELL, JAMES KING
THE TEACHING OF ARITHMETIC IN ENGLAND FROM 1550 UNTIL 1800 AS INFLUENCED BY SOCIAL CHANGE
THE MATHEMATICS TEACHER
10 00 69 7
*ARITHMETIC, *CURRICULUM, *HISTORICAL REVIEWS, *INSTRUCTION, *SOCIOECONOMIC INFLUENCES, MATHEMATICS EDUCATION, ENGLAND

2. SE 500 467
BRUCKHEIMER, M.; GOWAR, N.
APPARENT CONFLICTS IN MATHS EDUCATION
EDUCATIONAL STUDIES IN MATHEMATICS
07 00 69 8
*EDUCATIONAL OBJECTIVES, *MATHEMATICS EDUCATION, EDUCATIONAL PROBLEMS, INSTRUCTION, MODERN HISTORY, PROBLEM SOLVING

3. SE 006 347
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION
SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 17, SCIENCE AND SOCIETY, HISTORY OF SCIENCE EDUCATION, SCIENCE HISTORY, GENERAL STUDIES AND SURVEYS
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 026 283 MF $0.25 HC $1.70
12 00 68 32
*BIBLIOGRAPHIES, *SCIENCE EDUCATION, *SCIENCE EDUCATION HISTORY, *SCIENCE HISTORY, *SOCIOECONOMIC INFLUENCES, BIOLOGY, COLLEGE SCIENCE, EDUCATIONAL RESEARCH, ELEMENTARY SCHOOL SCIENCE, INTERNATIONAL EDUCATION, INSTRUCTION, PHYSICAL SCIENCES, SECONDARY SCHOOL SCIENCE, SCIENTIFIC LITERACY, SCIENTIFIC ENTERPRISE, TEACHER EDUCATION

4. SE 500 173
FANT, ALFRED B.
HALF MAN, HALF MYTH
THE MATHEMATICS TEACHER
03 00 69 4
*BIOGRAPHIES, *HISTORY, *MATHEMATICIANS, GEOMETRY, MATHEMATICS EDUCATION

5. SE 006 698
FRANKEL, EDWARD
A DECADE OF A. P. BIOLOGY
HIGH POINTS
12 00 65 11
*ADVANCED PLACEMENT PROGRAMS, *BIOLOGY, *COLLEGE SCIENCE, *SCIENCE EDUCATION HISTORY, *SECONDARY SCHOOL SCIENCE, EDUCATIONAL TRENDS, EDUCATIONAL OBJECTIVES, REFERENCE MATERIALS, TEACHER CHARACTERISTICS, NEW YORK CITY

6. SE 500 172
GREENBLATT, M. H.
PI-THREE VERSUS PI-FOUR
THE MATHEMATICS TEACHER
03 00 69 3
*HISTORY, *NUMBER CONCEPTS, GEOMETRY, GEOMETRIC CONCEPTS

7. SE 004 856
HAWKINSON, LAWRENCE DREW
THE CONTRIBUTIONS TO THE SECONDARY MATHEMATICS CURRICULUM OF THREE SCHOOLS IN THE PHILOSOPHY OF MATHEMATICS
STANFORD UNIVERSITY, CALIFORNIA
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
ED 027 181 NOT AVAILABLE FROM EDRS
67 293
*CURRICULUM, *LOGIC, *MATHEMATICS, *MATHEMATICS EDUCATION, *PHILOSOPHY, EDUCATIONAL PROGRAMS, FUNDAMENTAL CONCEPTS, PROGRAMS, SECONDARY SCHOOL MATHEMATICS

8. SE 500 030
HILL, KATHERINE E.
SCIENCE IN THE ELEMENTARY SCHOOL - A LOOK AHEAD
SCIENCE AND CHILDREN
02 00 69 7
*ELEMENTARY SCHOOL SCIENCE, CURRICULUM DEVELOPMENT, EDUCATIONAL FACILITIES, INSTRUCTIONAL MATERIALS, INSTRUCTION, INDIVIDUALIZED INSTRUCTION, TEACHER EDUCATION, NATIONAL SCIENCE TEACHERS ASSOCIATION

9. SE 500 714
KING, L. CARROLL
CHEMICAL EDUCATION--WHERE TO NOW?
JOURNAL OF CHEMICAL EDUCATION
09 00 69 3
*CHEMISTRY, *SCIENCE EDUCATION, *STUDENT NEEDS, *STUDENT SCHOOL RELATIONSHIP, INDIVIDUAL DIFFERENCES, OBJECTIVES, STUDENT REACTION

10. SE 007 059
MADDOX, J.
THE NUFFIELD PHYSICS PROJECT
PHYSICS EDUCATION
05 00 66 5
*CURRICULUM DEVELOPMENT, *SCIENCE EDUCATION HISTORY, *INTERNATIONAL EDUCATION, *PHYSICS, *SECONDARY SCHOOL SCIENCE, COURSE DESCRIPTIONS, EDUCATIONAL PROGRAMS, FILMS, PROGRAM DESCRIPTIONS, SCIENCE EQUIPMENT, NUFFIELD SCIENCE TEACHING PROJECT, PHYSICAL SCIENCE STUDY COMMITTEE, ENGLAND

11. SE 500 804
NORRIS, STANLEY
A CANADIAN VIEWS BRITISH AND AMERICAN SECONDARY SCHOOL SCIENCE
SCIENCE EDUCATION
02 00 69 8
*COMPARATIVE EDUCATION, *CURRICULUM DEVELOPMENT, *INTERNATIONAL EDUCATION, *SCIENCE EDUCATION, COMPARATIVE ANALYSIS, SECONDARY SCHOOL SCIENCE, NUFFIELD FOUNDATION, UNITED KINGDOM, NATIONAL SCIENCE FOUNDATION, UNITED STATES, 1969

12. SE 007 401
ROSEN, SIDNEY
INNOVATION IN SCIENCE TEACHING -- A HISTORICAL VIEW
SCHOOL SCIENCE AND MATHEMATICS
04 00 63 11
*CURRICULUM DEVELOPMENT, *EDUCATIONAL CHANGE, EDUCATIONAL OBJECTIVES, *ELEMENTARY SCHOOL SCIENCE, SCIENCE COURSE IMPROVEMENT PROJECT, *SCIENCE EDUCATION HISTORY, *SECONDARY SCHOOL SCIENCE, TEACHER EDUCATION, TEACHING METHODS, 1962

13. SE 500 797
TROOST, CORNELIUS J.
THE TEACHING OF EVOLUTION
THE AMERICAN BIOLOGY TEACHER
10 00 69 3
*BIOLOGY, *COURSE CONTENT, *CURRICULUM, *EVOLUTION, *STATE SURVEYS, ATTITUDES, SECONDARY SCHOOL SCIENCE, TEACHER QUALIFICATIONS, 1969, BIOLOGICAL SCIENCES CURRICULUM STUDY

14. SE 006 402
WAILES, JAMES R.
HISTORY AND DEVELOPMENT OF NATIONAL SCIENCE FOUNDATION ELEMENTARY INSTITUTES 1959-1967
UNIVERSITY OF COLORADO, BOULDER, SCHOOL OF EDUCATION
EDRS
ED 027 230 MF $0.25 HC $1.75
12 00 68 33
*ELEMENTARY SCHOOL TEACHERS, *INSERVICE EDUCATION, *PROFESSIONAL CONTINUING EDUCATION, *SUMMER INSTITUTES, *TEACHER EDUCATION, SCIENCE EDUCATION HISTORY, RESEARCH REPORTS, NATIONAL SCIENCE FOUNDATION

15. SE 007 364
WATSON, BERNARD B.
A BRIEF HISTORY OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE COOPERATIVE COMMITTEE ON THE TEACHING OF SCIENCE AND MATHEMATICS
METROPOLITAN DETROIT SCIENCE REVIEW
12 00 65 4
*EDUCATIONAL POLICY, *SCIENCE EDUCATION HISTORY, *SCIENTIFIC MANPOWER, *TEACHER EDUCATION, COLLEGE SCIENCE, EDUCATIONAL CHANGE, MATHEMATICS EDUCATION, SECONDARY SCHOOL SCIENCE, TEACHER QUALIFICATIONS, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, COOPERATIVE COMMITTEE ON THE TEACHING OF SCIENCE AND MATHEMATICS, NATIONAL SCIENCE FOUNDATION, SCIENCE TEACHING IMPROVEMENT PROGRAM, 1965

16. SE 006 474
THE NATIONAL SCIENCE TEACHERS ASSOCIATION SILVER YEAR REVIEW - YOUTH ACTIVITIES AND NATIONAL SCIENCE TEACHERS ASSOCIATION
THE SCIENCE TEACHER
12 00 68 4
CONFERENCES, DISADVANTAGED YOUTH, EDUCATIONAL PROGRAMS, *PROFESSIONAL ORGANIZATIONS, PROFESSIONAL STANDARDS, SCIENCE ACTIVITIES, SCIENCE PROJECTS, SCIENCE CLUBS, SCIENCE AWARDS, *SCIENCE EDUCATION HISTORY, FUTURE SCIENTISTS OF AMERICA FOUNDATION, NATIONAL SCIENCE TEACHERS ASSOCIATION

17. SE 500 338
THIRD ANNUAL NATIONAL SCIENCE TEACHERS ASSOCIATION CITATIONS FOR DISTINGUISHED SERVICE TO SCIENCE EDUCATION
THE SCIENCE TEACHER
05 00 69 1
*PROFESSIONAL ASSOCIATIONS, *SCIENCE EDUCATION HISTORY, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE, SECONDARY SCHOOL SCIENCE

## C. SCIENCE AND MATHEMATICS HISTORY

1. SE 500 359
BARR, E. SCOTT
JAMES PRESCOTT JOULE AND THE QUIET REVOLUTION
THE PHYSICS TEACHER
04 00 69 10
*PHYSICS, *SCIENCE HISTORY, *JAMES PRESCOTT JOULE, ENERGY, HEAT, PHYSICAL SCIENCES, SCIENCE EDUCATION

2. SE 007 128
BEAVER, DONALD deB.
THE AMERICAN SCIENTIFIC COMMUNITY, 1800-1860: A STATISTICAL-HISTORICAL STUDY
YALE UNIVERSITY, NEW HAVEN, CONNECTICUT
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
66 386
*RESEARCH METHODOLOGY, *SCIENCE HISTORY, DOCTORAL THESES, RESEARCH REPORTS, SCIENTIFIC MANPOWER, SCIENTISTS, 1966

3. SE 007 192
BONDI, HERMANN
MATERIALS IN THE SERVICE OF MAN, UNIT H
SCIENCE FOUNDATION FOR PHYSICS, UNIVERSITY OF SYDNEY, AUSTRALIA
PERGAMON PRESS, NEW YORK
68 50
*COLLEGE SCIENCE, *CHEMISTRY, *PHYSICS, *SCIENCE HISTORY, ATOMIC THEORY, SCIENTIFIC METHODOLOGY, HARVARD CASE HISTORIES IN EXPERIMENTAL SCIENCE

4. SE 500 399
BRUSH, STEPHEN G.
THE ROLE OF HISTORY IN THE TEACHING OF PHYSICS
THE PHYSICS TEACHER
05 00 69 10
*INSTRUCTION, *PHYSICAL SCIENCES, *SECONDARY SCHOOL SCIENCE, *SCIENCE EDUCATION, *SCIENCE HISTORY, CURRICULUM DEVELOPMENT, PHYSICS

5. SE 006 023
CARLSON, ELOF AXEL
A DECADE OF PROGRESS IN MODERN GENETICS
THE AMERICAN BIOLOGY TEACHER
11 00 68 13
*COLLEGE SCIENCE, *GENETICS, *SCIENCE HISTORY, *SCIENTIFIC CONCEPTS, BIOLOGY, SECONDARY SCHOOL SCIENCE, NATIONAL ASSOCIATION OF BIOLOGY TEACHERS

6. SE 500 518
CHANDRASEKHAR, S.
THE RICHTMYER MEMORIAL LECTURE--SOME HISTORICAL NOTES
AMERICAN JOURNAL OF PHYSICS
06 00 69 8
*PHYSICS, *RELATIVITY, *SCIENCE HISTORY, ASTRONOMY, LIGHT, TIME, EINSTEIN, 1969

7. SE 007 193
CONANT, JAMES BRYANT
THE OVERTHROW OF THE PHLOGISTON THEORY
HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS
HARVARD UNIVERSITY PRESS, CAMBRIDGE, MASSACHUSETTS
50 59
*COLLEGE SCIENCE, *CHEMISTRY, GENERAL EDUCATION, PHLOGISTON THEORY, *SCIENCE HISTORY, SCIENTIFIC METHODOLOGY, HARVARD CASE HISTORIES IN EXPERIMENTAL SCIENCE

8. SE 007 196
CONANT, JAMES BRYANT
PASTEUR'S STUDY OF FERMENTATION
HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS
HARVARD UNIVERSITY PRESS, CAMBRIDGE, MASSACHUSETTS
52 57
*COLLEGE SCIENCE, *SCIENCE HISTORY, BIOCHEMISTRY, BIOLOGY, CHEMISTRY, FERMENTATION, SCIENTIFIC METHODOLOGY, HARVARD CASE HISTORIES IN EXPERIMENTAL SCIENCE

9. SE 006 524
CULOTTA, CHARLES AUGUST
A HISTORY OF RESPIRATORY THEORY: LAVOISIER TO PAUL BERT, 1770-1880
UNIVERSITY OF WISCONSIN, MADISON
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
68 611
*BIOLOGICAL SCIENCES, *PHYSIOLOGY, *RESPIRATION, *SCIENCE HISTORY, ANATOMY, BIOLOGY, LAVOISIER, BUNSEN

10. SE 006 383
CUVAJ, CAMILLO
HENRI POINCARE'S MATHEMATICAL CONTRIBUTIONS TO RELATIVITY AND POINCARE STRESSES
AMERICAN JOURNAL OF PHYSICS
12 00 68 12
*MATHEMATICAL LOGIC, *PHYSICS, *RELATIVITY, *SCIENCE HISTORY, COLLEGE PHYSICS, LORENTZ, LARMOR, PLANCK, POINCARE, EINSTEIN

11. SE 500 055
DODGE, CLAYTON W.
GUIDO FUBINI
THE MATHEMATICS TEACHER
01 00 69 3
*BIOGRAPHIES, *MATHEMATICIANS, MATHEMATICS EDUCATION, ITALY

12. SE 006 347
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION
SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 17, SCIENCE AND SOCIETY, HISTORY OF SCIENCE EDUCATION, SCIENCE HISTORY, GENERAL STUDIES AND SURVEYS
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 026 283 MF $0.25 HC $1.70
12 00 68 32
*BIBLIOGRAPHIES, *SCIENCE EDUCATION, *SCIENCE EDUCATION HISTORY, *SCIENCE HISTORY, *SOCIOECONOMIC INFLUENCES, BIOLOGY, COLLEGE SCIENCE, EDUCATIONAL RESEARCH, ELEMENTARY SCHOOL SCIENCE, INTERNATIONAL EDUCATION, INSTRUCTION, PHYSICAL SCIENCES, SECONDARY SCHOOL SCIENCE, SCIENTIFIC LITERACY, SCIENTIFIC ENTERPRISE, TEACHER EDUCATION

13. SE 500 886
GORAN, MORRIS
THE KINDS OF SCIENTISTS
SCHOOL SCIENCE AND MATHEMATICS
11 00 69 3
*INDIVIDUAL CHARACTERISTICS, *SCIENTISTS, SCIENTIFIC ENTERPRISE, SCIENCE HISTORY, 1969

14. SE 006 102
IHDE, AARON
THE PLACE OF HISTORY IN SCIENCE TEACHING (A LECTURE GIVEN AT THE MEETING OF THE WISCONSIN SOCIETY OF SCIENCE TEACHERS, APRIL 1967)
UNIVERSITY OF WISCONSIN, MADISON
67 4
*SECONDARY SCHOOL SCIENCE, *SCIENCE CURRICULUM, *SCIENCE TEACHING, *SCIENCE HISTORY, TEXTBOOKS, WISCONSIN SOCIETY OF SCIENCE TEACHERS, 1967

15. SE 500 330
KLOPFER, LEOPOLD E.
THE TEACHING OF SCIENCE AND THE HISTORY OF SCIENCE (PAPER PRESENTED AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING MEETING, FEBRUARY 1968)
JOURNAL OF RESEARCH IN SCIENCE TEACHING
69 9
*SCIENTIFIC LITERACY, *SCIENCE EDUCATION, *SCIENCE HISTORY, COLLEGE SCIENCE, SECONDARY SCHOOL SCIENCE, TEACHING METHODS

16. SE 006 515
KUBRIN, DAVID CHARLES
PROVIDENCE AND THE MECHANICAL PHILOSOPHY: THE CREATION AND DISSOLUTION OF THE WORLD IN NEWTONIAN THOUGHT. A STUDY OF THE RELATIONS OF SCIENCE AND RELIGION IN SEVENTEENTH CENTURY ENGLAND
CORNELL UNIVERSITY, ITHACA, NEW YORK
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
68 407
*RELIGION, *RESEARCH REPORTS, *SCIENCE HISTORY, RELIGIOUS CONFLICT, NEWTON, HOOKE

17. SE 500 331
LAHTI, ARNOLD M.
COMMENTS ON THE TEACHING OF SCIENCE AND THE HISTORY OF SCIENCE (PAPER PRESENTED AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING MEETING, FEBRUARY 1968)
JOURNAL OF RESEARCH IN SCIENCE TEACHING
69 3
*SCIENCE HISTORY, *SCIENTIFIC LITERACY, *TEACHING METHODS, SCIENCE EDUCATION

18. SE 500 744
LAVACH, JOHN F.
ORGANIZATION AND EVALUATION OF AN IN-SERVICE PROGRAM IN THE HISTORY OF SCIENCE
JOURNAL OF RESEARCH IN SCIENCE TEACHING
69 5
*COURSE EVALUATION, *COLLEGE SCIENCE, *INSERVICE TEACHER EDUCATION, *SCIENCE HISTORY, *SCIENCE COURSES, COURSE DESCRIPTIONS, SCIENCE TEACHERS, SCIENTIFIC ENTERPRISE, TEST ON UNDERSTANDING SCIENCE, 1969

19. SE 007 172
LEICESTER, HENRY M.
DISCOVERY OF THE ELEMENTS, 7TH EDITION
CHEMICAL EDUCATION PUBLISHING COMPANY, EASTON,PENNSYLVANIA
68 896
*CHEMISTRY, *COLLEGE SCIENCE, *SECONDARY SCHOOL SCIENCE, *SCIENCE HISTORY, PHYSICAL SCIENCES, SCIENTIFIC ENTERPRISE

20. SE 500 284
LICK, DALE W.
THE REMARKABLE BERNOULLI FAMILY
THE MATHEMATICS TEACHER
05 00 69 9
*BIOGRAPHIES, *HISTORY, *MATHEMATICS EDUCATION, *BERNOULLI

21. SE 500 128
MARX, ROBERT
REVERSE SCIENCE FICTION?
SCHOOL SCIENCE AND MATHEMATICS
02 00 69 16
*PHYSICAL SCIENCES, *SCIENCE HISTORY, *SCIENCE EXPERIMENTS, CHEMISTRY, GENERAL SCIENCE, PHYSICS, SCIENTIFIC ENTERPRISE

22. SE 500 719
MORROW, B. A.
ON THE DISCOVERY OF THE ELECTRON
JOURNAL OF CHEMICAL EDUCATION
09 00 69 5
*ELECTRICITY, *ELECTRONS, *SCIENCE HISTORY, GASES, MODELS, PHYSICAL SCIENCES, SCIENTISTS, SCIENTIFIC CONCEPTS, 1969

23. SE 500 718
MORROW, SCOTT I.
ONE HUNDRED AND FIFTY YEARS OF ISOMORPHISM
JOURNAL OF CHEMICAL EDUCATION
09 00 69 4
*CHEMISTRY, *SCIENCE HISTORY, EARTH SCIENCE, STRUCTURAL ANALYSIS, 1969

24. SE 500 489
MULDAWER, LEONARD
RESOURCE LETTER XR-1 ON X RAYS
AMERICAN JOURNAL OF PHYSICS
02 00 69 12
*BIBLIOGRAPHIES, *COLLEGE SCIENCE, *PHYSICS, *RADIATION, ANNOTATED BIBLIOGRAPHIES, PHYSICAL SCIENCES, SECONDARY SCHOOL SCIENCE, SCIENCE HISTORY

25. SE 500 143
McPHERSON, ANN; CRUIKSHANK, DOUGLAS
NEWTON'S COMPUTER PROGRAM
SCHOOL SCIENCE AND MATHEMATICS
03 00 69 4
*COMPUTERS, *MATHEMATICS, *SCIENTISTS, *SCIENCE HISTORY, ALGORITHMS, RESOURCE MATERIALS

26. SE 500 017
PALDY, LESTER G.
A MASTER TEACHER
THE PHYSICS TEACHER
01 00 69 6
*PHYSICS, *SCIENTISTS, *SCIENCE HISTORY, *SCIENCE EDUCATION, COLLEGE SCIENCE, SECONDARY SCHOOL SCIENCE, *ENRICO FERMI

27. SE 500 170
POINCARE, HENRI
INSTITUTION AND LOGIC IN MATHEMATICS
THE MATHEMATICS TEACHER
03 00 69 8
*HISTORY, *MATHEMATICAL LOGIC, *SCIENTIFIC ATTITUDES, COMPARATIVE ANALYSIS, LOGIC

28. SE 006 228
PREUS, ANTHONY AXEL
PROBLEMS IN EXPLANATION IN ARISTOTLE'S BIOLOGY
JOHNS HOPKINS UNIVERSITY, BALTIMORE, MARYLAND
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
68 302
*BIOLOGY, DOCTORAL THESES, RESEARCH REPORTS, *SCIENCE HISTORY, ARISTOTLE

29. SE 007 120
PRICE, JOHN DAVID
A COMPARISON OF THREE PHILOSOPHIES OF SCIENCE AND RELIGION: AND THEIR IMPLICATIONS FOR SCIENCE EDUCATION
CLAREMONT COLLEGE, CALIFORNIA
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
ED 030 568 NOT AVAILABLE FROM EDRS
66 270
ATTITUDES, DOCTORAL THESES, *ETHICAL VALUES, *MORAL VALUES, *PHILOSOPHY, RESEARCH REPORTS, RELIGION, *SCIENCE HISTORY, *SCIENCE EDUCATION,JOHN DEWEY, ALFRED NORTH WHITEHEAD, WILLIAM TEMPLE, 1968

30. SE 500 100
PRIELIPP, ROBERT W.
THREE FAMOUS MATHEMATICIANS
THE MATHEMATICS TEACHER
02 00 69 3
*HISTORY, *MATHEMATICIANS, *SCIENTIFIC PERSONNEL, MATHEMATICS EDUCATION, PASCAL, NEWTON, GALOIS

31. SE 500 099
READ, CECIL B.
ANOMALOUS MATHEMATICAL NOMENCLATURE
THE MATHEMATICS TEACHER
02 00 69 5
*HISTORY, *MATHEMATICIANS, *SCIENTIFIC PERSONNEL, MATHEMATICS EDUCATION, MATHEMATICAL ENRICHMENT

32. SE 500 245
READ, CECIL B.
THE ROLE OF TOMBAUGH IN THE DISCOVERY OF PLUTO
SCHOOL SCIENCE AND MATHEMATICS
04 00 69 2
*ASTRONOMY, *SCIENCE HISTORY, *SCIENTISTS, PHYSICAL SCIENCES, REFERENCE MATERIALS, PLUTO, TOMBAUGH

33. SE 500 202
ROARK, OAKLEY F.
BIOLOGY IN APRIL
THE AMERICAN BIOLOGY TEACHER
03 00 69 2
*BIOLOGY, *SCIENCE HISTORY, *SCIENTISTS, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE, REFERENCE MATERIALS, SECONDARY SCHOOL SCIENCE

34. SE 500 389
ROARK, OAKLEY F.
BIOLOGY IN AUGUST
THE AMERICAN BIOLOGY TEACHER
05 00 69 2
*BIOLOGY, *SCIENTISTS, *SCIENCE HISTORY, REFERENCE MATERIALS, SCIENTIFIC RESEARCH

35. SE 500 120
ROARK, OAKLEY F.
BIOLOGY IN FEBRUARY
THE AMERICAN BIOLOGY TEACHER
02 00 69 2
*BIOLOGY, *SCIENCE HISTORY, *SCIENTISTS, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE, REFERENCE MATERIALS, SECONDARY SCHOOL SCIENCE

36. SE 500 387
ROARK, OAKLEY F.
BIOLOGY IN JUNE
THE AMERICAN BIOLOGY TEACHER
05 00 69 2
*BIOLOGY, *SCIENTISTS, *SCIENCE HISTORY, REFERENCE MATERIALS, SCIENTIFIC RESEARCH

37. SE 500 388
ROARK, OAKLEY F.
BIOLOGY IN JULY
THE AMERICAN BIOLOGY TEACHER
05 00 69 2
*BIOLOGY, *SCIENTISTS, *SCIENCE HISTORY, REFERENCE MATERIALS, SCIENTIFIC RESEARCH

38. SE 500 121
ROARK, OAKLEY F.
BIOLOGY IN MARCH
THE AMERICAN BIOLOGY TEACHER
02 00 69 1
*BIOLOGY, *SCIENCE HISTORY, *SCIENTISTS, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE, REFERENCE MATERIALS, SECONDARY SCHOOL SCIENCE

39. SE 007 126
ROCHE, THERESE AQUINAS
IMAGINATION IN GRAVITATIONAL THEORIES
ST. JOHN'S UNIVERSITY
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
67 202
DOCTORAL THESES, ENVIRONMENTAL INFLUENCES, *GRAVITY, *IMAGINATION, INDUCTIVE METHODS, MODELS, PHILOSOPHY, *PHYSICAL SCIENCES, RESEARCH REPORTS, *SCIENCE HISTORY, *THEORIES, 1967, GREEKS, ARISTOTLE, NICOLE ORESME, GALILEO, NEWTON, EINSTEIN

40. SE 007 194
ROLLER, DUANE
THE EARLY DEVELOPMENT OF THE CONCEPTS OF TEMPERATURE AND HEAT
HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS
HARVARD UNIVERSITY PRESS, CAMBRIDGE, MASSACHUSETTS
50 106
*COLLEGE SCIENCE, *CHEMISTRY, *HEAT, *PHYSICS, *SCIENCE HISTORY, SCIENTIFIC METHODOLOGY, *TEMPERATURE, HARVARD CASE HISTORIES IN EXPERIMENTAL SCIENCE

41. SE 500 512
SCHAFFNER, KENNETH F.
THE LORENTZ ELECTRON THEORY OF RELATIVITY
AMERICAN JOURNAL OF PHYSICS
05 00 69 16
*PHYSICS, *RELATIVITY, *SCIENCE HISTORY, *THEORIES, LORENTZ, EINSTEIN, 1969

42. SE 500 353
SCHAGRIN, MORTON L.
HISTORY OF SCIENCE: HISTORY OR SCIENCE (A REVISION OF A PAPER PRESENTED AT THE 1967 CENTRAL ASSOCIATION OF SCIENCE AND MATHEMATICS TEACHERS CONVENTION)
SCHOOL SCIENCE AND MATHEMATICS
05 00 69 13
*INSTRUCTION, *SCIENCE HISTORY, *SCIENCE EDUCATION, *SCIENTIFIC ENTERPRISE, HISTORY, PHILOSOPHY

43. SE 006 178
SEEGER, RAYMOND J.
SCIENTISTS ARE PEOPLE
THE PHYSICS TEACHER
12 00 68 9
ATTITUDES, COURSE ENROLLMENTS, DROPOUTS, MOTIVATION, *PHYSICS, *SCIENCE HISTORY, *STUDENT CHARACTERISTICS, SCIENTISTS, *SECONDARY SCHOOL SCIENCE, SCIENTIFIC ATTITUDES, SCIENTIFIC ENTERPRISE

44. SE 007 249
SZABADVARY, FERENC; OESPER, RALPH E.
DEVELOPMENT OF THE pH CONCEPT, A HISTORICAL SURVEY
JOURNAL OF CHEMICAL EDUCATION
02 00 64 3
*ACID-BASE THEORY, BUFFERS, *CONCEPT FORMATION, *HISTORICAL REVIEWS, MEASUREMENT TECHNIQUES, *SCIENTIFIC CONCEPTS

45. SE 500 716
WOLFENDEN, JOHN H.
THE NOBLE GASES AND THE PERIODIC TABLE - TELLING IT LIKE IT WAS
JOURNAL OF CHEMICAL EDUCATION
09 00 69 8
*CHEMISTRY, *SCIENCE HISTORY, *SCIENTISTS, SCIENTIFIC ENTERPRISE, NOBLE GASES, PERIODIC TABLE, 1969

46. SE 500 343
BRIEF HISTORY AND USE OF THE ENGLISH AND METRIC SYSTEMS OF MEASUREMENT
THE SCIENCE TEACHER
05 00 69 2
*MEASUREMENT, *MATHEMATICS, *SCIENCE HISTORY, PHYSICAL SCIENCES, ENGLISH SYSTEM, METRIC SYSTEM

## D. GENERAL STUDIES AND SURVEYS

1. SE 004 298
ALDEN, JOHN
ENGINEERING AND TECHNICIAN ENROLLMENTS, FALL 1967 DETAILED REPORT
ENGINEERING MANPOWER COMMISSION, NEW YORK, NEW YORK
EDRS
ED 022 026 MF $1.75 HC $17.96
68 447
*COLLEGE SCIENCE, *ENGINEERING, *ENROLLMENT, *SURVEYS, ENGINEERING EDUCATION, EDUCATIONAL TRENDS, TECHNICAL EDUCATION, TECHNICAL INSTITUTES, TECHNOLOGY, RESEARCH REPORTS, AMERICAN SOCIETY FOR ENGINEERING EDUCATION

2. SE 007 166
ALDEN, JOHN D.
ENGINEERING AND TECHNICIAN ENROLLMENTS, FALL 1968
ENGINEERING MANPOWER COMMISSION, NEW YORK, NEW YORK
ED 030 574 NOT AVAILABLE FROM EDRS
06 00 69 222
COLLEGE SCIENCE, *ENGINEERS, *ENROLLMENT TRENDS, GRADUATE STUDY, MALES, NATIONAL SURVEYS, RESEARCH REPORTS, *SCIENTIFIC MANPOWER, UNDERGRADUATE STUDY, ENGINEERING MANPOWER COMMISSION, ENGINEERS JOINT COUNCIL, 1968

3. SE 006 871
ALDEN, JOHN D.; AND OTHERS
ENGINEERS' SALARIES, SPECIAL INDUSTRY REPORT, 1968-1969
ENGINEERING MANPOWER COMMISSION, NEW YORK, NEW YORK
ED 029 801 NOT AVAILABLE FROM EDRS
05 00 69 152
*ENGINEERS, *INCOME, NATIONAL SURVEYS, *OCCUPATIONAL SURVEYS, *SCIENTIFIC MANPOWER, ENGINEERING MANPOWER COMMISSION

4. SE 006 870
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ENGINEERING MANPOWER COMMISSION, NEW YORK, NEW YORK
ED 029 800 NOT AVAILABLE FROM EDRS
04 00 69 96
*ENGINEERS, *INCOME, *OCCUPATIONAL SURVEYS, NATIONAL SURVEYS, *SCIENTIFIC MANPOWER, ENGINEERING MANPOWER COMMISSION

5. SE 006 056
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GUIDEBOOK FOR ENGINEERING NEWCOMERS TO THE UNITED STATES OF AMERICA WITH A WORD TO EMPLOYERS
ENGINEERING MANPOWER COMMISSION, NEW YORK, NEW YORK
ED 027 195 NOT AVAILABLE FROM EDRS
12 00 68 61
*ENGINEERS, *GUIDES, *IMMIGRANTS, ENGINEERING, LEGAL PROBLEMS, PROFESSIONAL RECOGNITION, ENGINEERING MANPOWER COMMISSION OF ENGINEERS JOINT COUNCIL

6. SE 006 276
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ABSTRACTS OF CURRENT RESEARCH PROJECTS RELATED TO EDUCATION, UNIVERSITY OF ILLINOIS 1968-69
UNIVERSITY OF ILLINOIS, URBANA, BUREAU OF EDUCATIONAL RESEARCH
12 00 68 75
*BIBLIOGRAPHIES, *CURRICULUM, *EDUCATIONAL RESEARCH, *INSTRUCTION, ADMINISTRATION, ABSTRACTS, EDUCATIONAL OBJECTIVES, GUIDANCE, HISTORY, SCHOOL PERSONNEL, SOCIOECONOMIC INFLUENCES, 1969

7. SE 500 527
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THE INFINITE TILTED-WELL: AN EXAMPLE OF ELEMENTARY QUANTUM MECHANICS WITH APPLICATIONS TOWARD CURRENT RESEARCH
AMERICAN JOURNAL OF PHYSICS
07 00 69 5
*PHYSICS, *PROBLEM SOLVING, *QUANTUM MECHANICS, *SCIENTIFIC RESEARCH, SCHRODINGER EQUATION, 1969

8. SE 500 805
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FUNDAMENTAL RESEARCH IN UNDERGRADUATE CHEMISTRY DEPARTMENTS
SCIENCE EDUCATION
02 00 69 2
*CHEMISTRY, *COLLEGE FACULTY, *COLLEGE SCIENCE, *NATIONAL SURVEYS, *SCIENTIFIC RESEARCH, 1969

9. SE 006 708
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REQUIREMENTS FOR SCIENTIFIC AND ENGINEERING MANPOWER IN THE 1970'S
NATIONAL ACADEMY OF SCIENCES, WASHINGTON, D.C.
64 12
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10. SE 007 246
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07 00 68 80
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11. SE 006 719
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04 00 69 2
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12. SE 006 351
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION
NEW APPROACHES TO SCIENCE EDUCATION RESEARCH, ABSTRACTS OF PRESENTED PAPERS AT THE NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING, 42ND ANNUAL MEETING, PASADENA, CALIFORNIA, FEBRUARY 1969
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 027 227 MF $0.50 HC $4.65
02 00 69 91
*CONFERENCE REPORTS, *EDUCATIONAL RESEARCH, *RESEARCH REVIEWS (PUBLICATIONS), *SCIENCE EDUCATION, BIOLOGICAL SCIENCES, COLLEGE SCIENCE, CONFERENCES, ELEMENTARY SCHOOL SCIENCE, EARTH SCIENCE, INSTRUCTION, PHYSICAL SCIENCES, RESEARCH METHODOLOGY, SECONDARY SCHOOL SCIENCE, TEACHER EDUCATION, NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

13. SE 006 347
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SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 17, SCIENCE AND SOCIETY, HISTORY OF SCIENCE EDUCATION, SCIENCE HISTORY, GENERAL STUDIES AND SURVEYS
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 026 283 MF $0.25 HC $1.70
12 00 68 32
*BIBLIOGRAPHIES, *SCIENCE EDUCATION, *SCIENCE EDUCATION HISTORY, *SCIENCE HISTORY, *SOCIOECONOMIC INFLUENCES, BIOLOGY, COLLEGE SCIENCE, EDUCATIONAL RESEARCH, ELEMENTARY SCHOOL SCIENCE, INTERNATIONAL EDUCATION, INSTRUCTION, PHYSICAL SCIENCES, SECONDARY SCHOOL SCIENCE, SCIENTIFIC LITERACY, SCIENTIFIC ENTERPRISE, TEACHER EDUCATION

14. SE 006 277
FRYE, ROBERT E.; AND OTHERS
PROFESSIONAL SCIENTIFIC SOCIETIES, 1968
WOLF RESEARCH AND DEVELOPMENT CORPORATION, BLADENSBURG, MARYLAND
EDRS
ED 027 210 MF $0.50 HC $6.10
11 00 68 120
*PROFESSIONAL ASSOCIATIONS, *SCIENCES, *SCIENTIFIC PERSONNEL, BEHAVIORAL SCIENCES, BIOLOGICAL SCIENCES, ENGINEERING, MATHEMATICS, NATURAL SCIENCES, PHYSICAL SCIENCES, SCIENTISTS, SOCIAL SCIENCES, NATIONAL SCIENCE FOUNDATION, OFFICE OF SCIENCE INFORMATION SERVICE

15. SE 006 451
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16. SE 007 127
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17. SE 006 001
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66 266
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18. SE 005 546
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20. SE 007 124
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21. SE 006 516
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RELATIONSHIP BETWEEN PERFORMANCE ON A SCIENTIFIC CREATIVITY TEST AND PARTICIPATION IN A SCIENCE FAIR
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22. SE 006 452
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23. SE 500 575
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JOURNAL OF CHEMICAL EDUCATION
02 00 69 9
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24. SE 500 358
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05 00 69 20
*BIBLIOGRAPHIES, *DOCTORAL THESES, *MATHEMATICS EDUCATION, *SCIENCE EDUCATION, BIBLIOGRAPHIC CITATIONS

25. SE 006 215
MARQUIS, DAVE
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26. SE 006 213
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27. SE 005 559
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GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C.
68 10
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28. SE 007 151
NATIONAL SCIENCE FOUNDATION
SECONDARY SCHOOL SCIENCE AND MATHEMATICS TEACHERS, CHARACTERISTICS AND SERVICE LOADS
NATIONAL SCIENCE FOUNDATION, WASHINGTON, D.C.
EDRS
ED 030 573 MF $0.25 HC $2.60
63 50
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29. SE 006 707
NORTH CAROLINA STATE DEPARTMENT OF PUBLIC INSTRUCTION
CERTIFICATION AND IN-SERVICE EXPERIENCES, NORTH CAROLINA SCIENCE TEACHERS GRADES 7-9, A STATUS REPORT 1968
NORTH CAROLINA STATE DEPARTMENT OF PUBLIC INSTRUCTION, RALEIGH
68 11
*SCIENCE TEACHERS, *INSERVICE EDUCATION, *TEACHER CERTIFICATION, *SECONDARY SCHOOL SCIENCE, BIOLOGICAL SCIENCES, EARTH SCIENCE, PHYSICAL SCIENCES, SURVEYS, SCIENCE EDUCATION, TEACHER EDUCATION, INSERVICE TEACHER EDUCATION, NORTH CAROLINA

30. SE 006 852
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31. SE 004 873
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*CAREER DEVELOPMENT, BACHELORS DEGREES, COMPARATIVE ANALYSIS, DOCTORAL THESES, DOCTORAL DEGREES, *ENGINEERING, MASTERS DEGREES, RESEARCH REPORTS, PURDUE UNIVERSITY

32. SE 006 720
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33. SE 500 129
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34. SE 007 492
SCHUSTER, JOSEPH H.
SCIENTIFIC ACTIVITIES AT UNIVERSITIES AND COLLEGES 1964
NATIONAL SCIENCE FOUNDATION, WASHINGTON, D.C.
GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C.
EDRS
ED 032 227 MF $0.50 HC $5.60
05 00 68 110
AGRICULTURAL COLLEGES, *COLLEGE SCIENCE, ENGINEERING, *EMPLOYMENT PATTERNS, FEDERAL AID, MEDICAL SCHOOLS, *NATIONAL SURVEYS, *OPERATING EXPENSES, RESEARCH AND DEVELOPMENT CENTERS, SCIENTIFIC RESEARCH, NATIONAL SCIENCE FOUNDATION, OFFICE OF ECONOMIC AND MANPOWER STUDIES, UNITED STATES OFFICE OF EDUCATION

35. SE 006 764
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EDRS
ED 029 794 MF $0.25 HC $1.70
01 00 69 32
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36. SE 006 718
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04 00 69 2
*COLLEGE SCIENCE, *CAREER CHOICE, EARTH SCIENCE, *GEOLOGY, *NATIONAL SURVEYS, *STUDENT INTERESTS, 1969, AMERICAN GEOLOGICAL INSTITUTE, CANADA, NATIONAL SCIENCE FOUNDATION, ARMY AERIAL PHOTOGRAPH INTERPRETATION SCHOOL

37. SE 007 125
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38. SE 007 397
SUMMERS, EDWARD G.; MITCHELL, RONALD W.
DOCTORAL RESEARCH IN ELEMENTARY AND SECONDARY SCIENCE: 1952 TO 1961
SCHOOL SCIENCE AND MATHEMATICS
01 00 63 11
ACADEMIC ACHIEVEMENT, *BIBLIOGRAPHIES, BIOLOGY, CHEMISTRY, CURRICULUM, DOCTORAL THESES, *ELEMENTARY SCHOOL SCIENCE, EDUCATIONAL RESEARCH, GENERAL SCIENCE, PROBLEM SOLVING, PHYSICS, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, TEACHING METHODS

39. SE 006 504
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40. SE 007 200
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RESEARCH IN SCIENCE EDUCATION 1948 THROUGH 1952
NEW YORK STATE UNIVERSITY, OSWEGO
TEACHERS COLLEGE PRESS, COLUMBIA UNIVERSITY, NEW YORK
ED 031 413 NOT AVAILABLE FROM EDRS
69 193
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41. SE 006 030
TRAYLOR, ELWOOD B.
UP, UP AND AWAY. AN EXPLORATORY STUDY OF THE CHARACTERISTICS AND MOTIVES OF STUDENTS IN 6 SECONDARY SCHOOL AVIATION CLASSES AND THE INFLUENCE OF THE CLASS ON THESE STUDENTS
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68 20
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42. SE 007 374
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43. SE 007 241
WESTERMANN, G. E. G.
DIRECTORY OF PALAEONTOLOGISTS OF THE WORLD 1968
McMASTER UNIVERSITY, HAMILTON, ONTARIO (CANADA)
EDRS
ED 030 579 MF $1.00 NOT AVAILABLE FROM EDRS
06 00 68 264
*DIRECTORIES, EARTH SCIENCES, INTERNATIONAL PROGRAMS, *PALEONTOLOGY, *SCIENTISTS

44. SE 006 013
WILSON, J. TUZO
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GEOTIMES
12 00 68 3
*COLLEGE SCIENCE, *EARTH SCIENCE, GEOLOGY, *THEORY FORMATION,LETTERS, SCIENCE HISTORY, 1968

45. SE 006 245
ZAFFRON, RICHARD HAROLD
SCIENTIFIC EXPLANATION: EXPLANATION-TYPES AND EXPLANATION-LEVELS
INDIANA UNIVERSITY, BLOOMINGTON
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68 256
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46. SE 007 129
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47. SE 500 367
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THE PHYSICS TEACHER
04 00 69 4
*PHYSICAL SCIENCES, *PHYSICS TEACHERS, *SCIENTISTS, PHYSICS, SCIENCE EDUCATION, AMERICAN ASSOCIATION OF PHYSICS TEACHERS AWARDS

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66 21
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49. SE 007 358
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KING, L. CARROLL (9B)

KOBES, KATHERINE ELLEN (21D)

KORTH, WILLARD WILLIAM (31A)

KRIEGHBAUM, HILLIER (32A)

KRINITZSKY, ELLIS L.;
RADER, MILES T., JR. (22D)

KUBRIN, DAVID CHARLES (16C)

LAHTI, ARNOLD M. (17C)

LAMSON, ROBERT W. (33A)

LAVACH, JOHN F. (18C)

LEICESTER, HENRY M. (19C)

LIBBY, W. F. (34A)

LICK, DALE W. (20C)

LINNELL, ROBERT H.;
CHAPIN, DOUGLAS S. (23D)

MADDOX, J. (10B)

MADSEN, DAVID (35A)

MANGRUM, CHARLES; MORRIS, WILLIAM (24D)

MARQUIS, DAVE (25D)

MARX, ROBERT (21C)

MORROW, B. A. (22C)

MORROW, SCOTT I. (23C)

MULDAWER, LEONARD (24C)

McCURDY, DONALD WILLIAM (26D)

McPHERSON, ANN; CRUIKSHANK, DOUGLAS (25C)

NEWELL, HOMER E. (36A)

NORRIS, STANLEY (11B)

NATIONAL COMMISSION ON TEACHER
EDUCATION (27D)

NATIONAL SCIENCE FOUNDATION (28D)

NORTH CAROLINA STATE DEPARTMENT OF
PUBLIC INSTRUCTION (29D)

PALDY, LESTER G. (26C)

PITZER, KENNETH S. (37A)

POINCARE, HENRI (27C)

PREUS, ANTHONY AXEL (28C)

PRICE, JOHN DAVID (29C)

PRIELIPP, ROBERT W. (30C)

READ, CECIL B. (31C, 32C)

REID, ROGER D. (38A)

REISMAN, ARNOLD (39A)

ROARK, OAKLEY F. (33C, 34C, 35C, 36C, 37C, 38C)

ROBINSON, JAMES T. (40A)

ROCHE, THERESE AQUINAS (39C)

ROETHEL, DAVID A. H. (30D)

ROLLER, DUANE (40C)

RONS, DONALD EUGENE (31D)

ROSEN, SIDNEY (12B)

ROTH, ELDON S. (32D)

SAMPLES, ROBERT E. (41A)

SCHAEFER, MILNER B. (33D)

SCHAFFNER, KENNETH F. (41C)

SCHAGRIN, MORTON L. (42C)

SCHUSTER, JOSEPH H. (34D)

SCIENTIFIC MANPOWER COMMISSION (35D)

SEABORG, GLENN T. (42A)

SEEGER, RAYMOND J. (43C)

SHRUM, JOHN W. (43A)

SNYDER, JOHN L. (36D)

STEGEMAN, BEATRICE ANN (37D)

SUMMERS, EDWARD G.;
MITCHELL,RONALD W. (38D)

SUMMERS, WORTH CARY (39D)

SWIFT, J. NATHAN (40D)

SZABADVARY, FERENC;
OESPER, RALPH E. (44C)

TANNER, R. THOMAS (44A)

TATUM, EDWARD L. (45A)

TAYLOR, CALVIN W. (46A)

TRAYLOR, ELWOOD B. (41D)

TRICKER, R. A. R. (42D)

TROOST, CORNELIUS J. (13B)

WAILES, JAMES R. (14B)

WATSON, BERNARD B. (15B)

WESTERMANN, G. E. G. (43D)

WILSON, J. TUZO (44D)

WOLFENDEN, JOHN H. (45C)

WOOLF, HARRY (47A)

ZAFFRON, RICHARD HAROLD (45D)

ZWEIG, CARL G. (46D)

## F. ARTICLES WITH NO SPECIFIED AUTHOR

AMERICAN ASSOCIATION OF PHYSICS TEACHERS AWARDS 1969 (47D)

BRIEF HISTORY AND USE OF THE ENGLISH AND METRIC SYSTEMS OF MEASUREMENT (46C)

CAREERS IN HIGH SCHOOL PHYSICS TEACHING (48D)

CHEMICAL PROFESSION IS CHANGING (49D)

THE NATIONAL SCIENCE TEACHERS ASSOCIATION SILVER YEAR REVIEW - YOUTH ACTIVITIES AND NATIONAL SCIENCE TEACHERS ASSOCIATION (16B)

SCIENCE AND THE CITIZEN (48A)

THIRD ANNUAL NATIONAL SCIENCE TEACHERS ASSOCIATION CITATIONS FOR DISTINGUISHED SERVICE TO SCIENCE EDUCATION (17B)